IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

(Attorney Docket No. 2382)

In the Application of:	)	
	)	
Balaji S. Thenthiruperai	)	
	)	Examiner: Frantz B. Jean
Serial No.: 10/691,273	)	
	)	Art Unit: 2154
Filed: October 22, 2003	)	
	)	Confirmation No. 4931
For: Method and System for Managing	)	
Abnormal Disconnects During a	)	
Streaming Media Session	)	

APPEAL BRIEF

Michael S. Borella
McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 South Wacker Drive
Chicago, Illinois 60606
(312) 913-0001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

(Attorney Docket No. 2382)

In the Application of:	)
	)
Balaji S. Thenthiruperai	)
	) Examiner: Frantz B. Jean
Serial No.: 10/691,273	)
	) Art Unit: 2154
Filed: October 22, 2003	)
	) Confirmation No. 4931
For: Method and System for Managing	)
Abnormal Disconnects During a	)
Streaming Media Session	)

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted pursuant 37 C.F.R. § 41.37, within one month from the

June 6, 2008, mailing date of the Notice of Panel Decision from Pre-Appeal Brief Review. The

Office is authorized to charge the large entity Appeal-Brief fee ($510.00) to Deposit Account

No. 210765 and generally in this matter authorized to charge any underpayment or credit any

overpayment to the same deposit account.

Table of Contents

I.   **Real Party in Interest**

The real party in interest is Sprint Spectrum L.P. (a wholly owned subsidiary of Sprint Nextel Corporation), to which this invention is assigned.

II.   **Related Appeals and Interferences**

Applicant is not aware of any related appeals or interferences.

III.   **Status of Claims**

Claims 1-25 and 27 are pending, rejected, and all under appeal. Claim 26 is cancelled. A clean set of the pending claims is attached in the Claims Appendix.

IV.   **Status of Amendments**

Following the final rejection, an amendment was filed on January 24, 2008. The Claims Appendix reflects this amendment.

V.   **Summary of Claimed Subject Matter**

There are three independent claims: claims 1, 17, and 27. These claims are directed to methods and systems for streaming multimedia to mobile devices over a wireless connection, wherein a wireless connection to a mobile device is terminated, the point in the multimedia content stream where the termination occurred is retained, and after the wireless connection is re-established, the multimedia stream is resumed from approximately the point at which the wireless connection was terminated. By doing so, having to replay the multimedia content from the beginning can be avoided, saving both time and network resources. (*See, e.g.*, specification, at page 11, lines 3-10.)

In particular, claims 1 recites a method for streaming multimedia content in a wireless communication system. The method comprises receiving, in a server in a data network, a request from a mobile device to stream multimedia content to the mobile device from the server, the request being transmitted over a wireless connection and via a network entity to the server,

-1-

wherein the network entity is selected from the group consisting of a base station controller (BSC) and a packet data serving node (PDSN). (*See, e.g.*, specification, at page 12, lines 1-10.) Further, the method comprises streaming a portion of the requested multimedia content from the server to the mobile device via the network entity and a wireless connection. (*See, e.g.*, specification, at page 12, lines 11-16; Figure 1, reference numerals 110, 115, 120, and 125.)

Yet further, the method comprises the network entity detecting a termination of the wireless connection during the streaming, and the network entity responsively notifying the server. (*See, e.g.*, specification, at page 12, lines 21-23; page 13, lines 1-19; Figures 3A and 3B.) Still further, the method comprises retaining information, the information indicating a point in the multimedia content stream where the termination occurred. (*See, e.g.*, specification, at page 13, lines 5-6; Figure 4.) Further, the method comprises re-establishing the wireless connection. (*See, e.g.*, specification, at page 14, lines 16-17.) Even further, the method comprises resuming streaming of the multimedia content based on the retained information. (*See, e.g.*, specification, at page 14, lines 22-23; page 15, lines 1-4.)

Claim 17 recites a method for streaming multimedia content in a wireless communication network. The method comprises receiving, via a packet data network, a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network. (*See, e.g.*, specification, at page 12, lines 1-10.) Further, the method comprises streaming at least a portion of the requested multimedia content from the server to the mobile device via a multimedia gateway, via an entity selected from the group consisting of a base station controller (BSC) and a packet data serving node (PDSN), and via a wireless connection to the mobile device. (*See, e.g.*, specification, at page 12, lines 11-16; Figure 1, reference numerals 110, 115, 120, 125, and 145.

Yet further, the method comprises, at the entity, detecting a termination of the wireless connection during the streaming and responsively notifying at least one of the multimedia gateway and the server of the termination of the wireless connection. (*See*, *e.g.*, specification, at page 12, lines 21-23; page 13, lines 1-19; Figures 3A and 3B.) Even further, the method comprises retaining information one of the multimedia gateway and the server, the information indicating a point in the multimedia content where the termination of the wireless connection occurred. (*See*, *e.g.*, specification, at page 13, lines 5-8; Figure 4.) Further, the method comprises re-establishing the wireless connection. (*See*, *e.g.*, specification, at page 14, lines 16-17.) Even further, the method comprises resuming streaming of the multimedia content based on the retained information. (*See*, *e.g.*, specification, at page 14, lines 22-23 through page 15, lines 1-4.)

Claim 27 recites a multimedia gateway included in a data network having a set of instructions stored therein, that when executed, the instructions provide for receiving a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network. (*See*, *e.g.*, specification, at page 12, lines 1-10.) Further, the set of instructions provide for streaming at least a portion of the requested multimedia content received from the server to the mobile device via a packet data serving node. (*See*, *e.g.*, specification, at page 12, lines 11-16; Figure 1, reference numerals 110 and 125.) Yet further, the set of instructions provide for receiving a notification from the packet data serving node that a termination of the wireless connection occurred during the streaming. (*See*, *e.g.*, specification, at page 13, lines 18-19). Even further, the set of instructions provide for communicating the notification to the server. (*See*, *e.g.*, specification, at page 17, lines 1-12.)

- 3 -

Further, the set of instructions provide for receiving information from the server, the received information indicating a point in the multimedia content stream where the termination of the wireless connection occurred and an identifier of the mobile device. (*See, e.g.,* specification, at page 17, lines 1-12.) Still further, the set of instructions provide for storing the received information in a database operatively associated with the multimedia gateway. (*See, e.g.,* specification, at page 17, lines 13-15.) Yet even further, the set of instructions provide for re-establishing the wireless connection. (*See, e.g.,* specification, at page 14, lines 16-17.) Further, the set of instructions provide for sending the received information to the server. (*See, e.g.,* specification, at page 17, lines 17-21.) Still further, the set of instructions provide for receiving logic from the server. (*See, e.g.,* specification, at page 14, lines 22-23 through page 15, line 1.) Even further, the set of instructions provide for executing the received logic to resume streaming of the multimedia content based on the received information. (*See, e.g.,* specification, at page 15, lines 2-4.)

VI.   Grounds of Rejection to be Reviewed on Appeal

Independent claims 1, 17, and 27, and dependent claims 4-5, 8-16, and 24-25, stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent Application Publication No. 2002/0065074 (Cohn) in view of U.S. Patent No. 6,894,994 (Grob).

Dependent claims 2-3 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over Cohn and Grob in view of U.S. Patent No. 7,071,942 (Zaima).

Dependent claims 6-7 and 18-21 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over Cohn and Grob in view of Applicant's background of the invention.

- 4 -

VII.   Argument

1.   The Examiner Clearly Erred in Rejecting Claims 1 and 17

Applicant submits that the Examiner's rejections of claims 1 and 17 are clearly erroneous, at a minimum because (i) the Examiner has erred in interpreting the teachings of the cited references, and therefore (ii) the Examiner has failed to establish a *prima facie* case of obviousness of independent claims 1 and 17 over Cohn in view of Grob.

The Examiner has made mistakes of fact in interpreting the cited references. The Examiner contended that the cited references teach each and every element of claims 1 and 17. However, a careful reading of the Examiner's citations to these references reveals that, contrary to Examiner's assertions, not all claim elements are taught by the references. Thus, the Examiner's basis for rejecting claims 1 and 17 is in error.

Furthermore, in order to establish a *prima facie* case of obviousness of a claim over a combination of references, an Examiner must articulate reasoning with some rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006). An obviousness analysis should be explicit. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). *See also* M.P.E.P. § 2142. In this case, however, the Examiner's articulated reasoning for why the combination of Cohn and Grob would ultimately render the claimed invention obvious lacks factual support. In particular, the references do not teach what the Examiner relied on them exclusively to teach. Furthermore, the Examiner has failed to point to any objectively sound evidence that would have led one of ordinary skill in the art to modify the these references so as to achieve the claimed invention. Therefore, under M.P.E.P. § 2142, the Examiner has failed to establish *prima facie* obviousness of claims 1 and 17.

a.   Summary of the Examiner's Position

In rejecting the claims, the Examiner asserted that the primary Cohn reference teaches the elements of (i) receiving, in a server in a data network, a request from a mobile device to stream multimedia content to the mobile device from the server, the request being transmitted over a wireless connection and via a network entity to the server, (ii) streaming a portion of requested multimedia content from the server to the mobile device via the network entity and the wireless connection, (iii) the network entity detecting a termination of the wireless connection during the streaming, and the network entity responsively notifying the server, (iv) retaining information, the information indicating a point in the multimedia content stream where the termination of the wireless connection occurred, (v) re-establishing the wireless connection, and (vi) resuming streaming of the multimedia content based on the retained information. The Examiner found Cohn deficient, in that Cohn fails to teach a BSC or a PDSN. The Examiner then relied on Grob for disclosure of a BSC and a PDSN.

b.   Cohn Does Not Teach Streaming Multimedia

Cohn is at best related to *downloading a file* to a mobile device, rather than streaming media to a mobile device. While the Cohn reference makes use of the word "stream" in various contexts, it actually teaches away from applying its process in connection with multimedia streaming as recited by Applicant's claims.

The well understood meaning of "streaming" involves transmitting a media stream from a server to a client with the client playing out the media as it is streamed, and potentially discarding portions of the stream already played out. (*See, e.g.,* specification, at page 3, lines 11-15.)   At several points, Cohn teaches away from applying its process in connection with streaming as recited by Applicant's claims, and instead teaches downloading a file to a mobile

device, for subsequent offline playout of the file. Downloading media files such that devices can play these files back when not connected to a service provider is contrary to the well understood meaning of streaming.

For example, at paragraph 0026, Cohn states, "A customer could elect to have content delivered to a mobile Internet capable device and review it at their leisure or have it streamed in real time. *The present invention is directed to devices that store content locally and allow playback when not connected to a service provider.*" (Emphasis added.) Likewise, Cohn again fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device at paragraph 0055, using substantially the same wording as the above quoted section of paragraph 0026. Cohn never teaches streaming as defined by Applicant's specification.

Thus, Cohn relates to *downloading* a file to a mobile device, for subsequent offline playout of the file by the wireless device. In contrast, Applicant's claims recite *streaming* media to a wireless device.

        c.   **Grob Fails to Make Up For Cohn's Deficiencies**

In rejecting claims 1 and 17, the Examiner correctly admitted that Cohn is deficient for failing to teach a BSC or a PDSN. However, Cohn's deficiencies are far greater than that, as Cohn not only fails to teach a BSC or a PDSN, but also fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device. To address the admitted deficiency of Cohn, the Examiner cited Grob. However, Grob fails to make up for both the admitted deficiency and the greater deficiency of Cohn.

Claims 1 and 17 recite that a network entity, specifically a BSC or PDSN, detects the termination of a wireless connection and notifies a server of this termination. The Examiner

- 7 -

alleged that Grob, in Fig. 6 – Fig. 8, col. 10, line 41 to col. 11, line 50, and col. 21, line 10 to col. 22, line 28, teaches the above limitations. However, the Examiner has erred.

In Grob, Fig. 6 – Fig. 8 present architectural diagrams of portions of wireless networks, some of which contain a BSC and/or a PDSN. Grob, at Col. 10, line 41 to col. 11, line 50, describes the components of Fig 6. – Fig. 8. Grob, at Col. 21, line 10 to col. 22, line 28, describes the operation of Mobile IP in a PDSN, as well as operations related to CDMA dormancy. None of these sections of Grob teaches a BSC or PDSN detecting a termination of the wireless connection during streaming or responsively notifying a server of such a termination. Furthermore, Grob, like Cohn, is not directed to streaming media to a mobile device.

The Examiner relied exclusively on Grob to teach a BSC or a PDSN detecting a termination of the wireless connection during streaming and responsively notifying a server. Because Grob does not teach a BSC or PDSN performing these functions, and because of Cohn's deficiencies, claims 1 and 17 do not reasonably or logically follow from the teachings of Cohn and Grob.

d. The Examiner's Rejection is in Error

In addition to Grob not making up for the deficiency of Cohn, the Examiner has not articulated reasoning that would lead a person of ordinary skill in the art to achieve Applicant's claimed invention based on these references. Thus, the Examiner has failed to establish *prima facie* obviousness.

The Examiner asserted that it would be obvious to one of ordinary skill in the art at the time of the invention to "combine Grob's features with Cohn's system to increase data transmission in Cohn's at any particular moment." Office Action mailed Nov. 27, 2007, at page

- 8 -

3. The Examiner attempted to justify this combination by stating that it would "improve and facilitate high data rate, data traffic and wireless packet data communication in the system." *Id.* This rationale for combining Cohn and Grob is irrelevant, however, since claims 1 and 17 do not reasonably or logically follow from this combination. Thus, the Examiner's obviousness rejection is erroneous under M.P.E.P. § 2142.

> e.   **Allowability of Claims 4-5, 8-16 and 24-25**

For the foregoing reasons, Applicant submits that the Examiner has clearly erred in rejecting claims 1 and 17, and that claims 1 and 17 are therefore allowable. Furthermore, without conceding the Examiner's assertions regarding dependent claims 4-5, 8-16, and 24-25, Applicant submits that dependent claims 4-5, 8-16, and 24-25 are allowable for at least the reason that they depend from an allowable claim.

> 2.   **The Examiner Clearly Erred in Rejecting Claim 27**

Applicant submits that the Examiner's rejection of claim 27 is clearly erroneous, at a minimum because (i) the Examiner has erred in interpreting the teachings of the cited references, and therefore (ii) the Examiner has failed to establish a *prima facie* case of obviousness of independent claim 27 over Cohn in view of Grob.

The Examiner has made mistakes of fact in interpreting the cited references. The Examiner contended that the cited references teach each and every element of claim 27. However, a careful reading of the Examiner's citations to these references reveals that, contrary to Examiner's assertions, not all claim elements are taught by the references. Thus, the Examiner's basis for rejecting claim 27 is in error.

Furthermore, in order to establish a *prima facie* case of obviousness of a claim over a combination of references, an Examiner must articulate reasoning with some rational

- 9 -

underpinning to support the legal conclusion of obviousness. *Kahn* at 988. An obviousness analysis should be explicit. *KSR* at 1741. *See also* M.P.E.P. § 2142. In this case, however, the Examiner's articulated reasoning for why the combination of Cohn and Grob would ultimately render the claimed invention obvious lacks factual support. In particular, the references do not teach what the Examiner relied on them exclusively to teach. Furthermore, the Examiner has failed to point to any objectively sound evidence that would have led one of ordinary skill in the art to modify the these references so as to achieve the claimed invention. Therefore, under M.P.E.P. § 2142, the Examiner has failed to establish *prima facie* obviousness of claim 27.

a. Summary of the Examiner's Position

In rejecting the claims, the Examiner asserted that the primary Cohn reference teaches the elements of (i) a multimedia gateway included in a data network having a set of instructions stored therein, that when executed, the instructions provide for receiving a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network, (ii) streaming at least a portion of the requested multimedia content received from the server to the mobile device, (iii) receiving a notification that a termination of the wireless connection occurred during the streaming, (iv) communicating the notification to the server, (v) receiving information from the server, the received information indicating a point in the multimedia content stream where the termination of the wireless connection occurred and an identifier of the mobile device, (vi) storing the received information in a database operatively associated with the multimedia gateway, (vii) re-establishing the wireless connection, (viii) sending the received information to the server, (ix) receiving logic from the server, and (x) executing the received logic to resume streaming of the multimedia content based on the received information. The Examiner found

Cohn deficient, in that Cohn fails to teach a BSC or a PDSN. The Examiner then relied on Grob for disclosure of a BSC and a PDSN.

b.   Cohn Does Not Teach Streaming Multimedia

Cohn is at best related to *downloading a file* to a mobile device, rather than streaming media to a mobile device. While the Cohn reference makes use of the word "stream" in various contexts, it actually teaches away from applying its process in connection with multimedia streaming as recited by Applicant's claims.

The well understood meaning of "streaming" involves transmitting a media stream from a server to a client with the client playing out the media as it is streamed, and potentially discarding portions of the stream already played out. (*See, e.g.*, specification, at page 3, lines 11-15.)   At several points, Cohn teaches away from applying its process in connection with streaming as recited by Applicant's claims, and instead teaches downloading a file to a mobile device, for subsequent offline playout of the file. Downloading media files such that devices can play these files back when not connected to a service provider is contrary to the well understood meaning of streaming.

For example, at paragraph 0026, Cohn states, "A customer could elect to have content delivered to a mobile Internet capable device and review it at their leisure or have it streamed in real time. *The present invention is directed to devices that store content locally and allow playback when not connected to a service provider.*" (Emphasis added.) Likewise, Cohn again fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device at paragraph 0055, using substantially the same wording as the above quoted section of paragraph 0026.   Cohn never teaches streaming as defined by Applicant's specification.

- 11 -

Thus, Cohn relates to *downloading* a file to a mobile device, for subsequent offline playout of the file by the wireless device. In contrast, Applicant's claims recite *streaming* media to a wireless device.

c.   Cohn Does Not Teach Receiving Logic From a Server

The Examiner contended that paragraphs 0054, 0082, 0103, and 0117-0121 of Cohn teach the claim element of "receiving logic from the server." Office Action mailed Nov. 27, 2007, at page 8. However, the Examiner is mistaken. At best, these sections of Cohn teach a block retransmission enabling (BRE), which is means to keeping track of a most recently received block number in a file that is being transmitted, and do not teach the reception of logic from the server. As defined in Applicant's specification at page 18, lines 10-15, and is well known in the art, logic is executable. The Examiner failed to identify a section of Cohn that teaches receiving executable logic from a server. Thus, the Examiner has erred when stating that Cohn teaches this element of claim 27.

d.   Grob Fails to Make Up For Cohn's Deficiencies

In rejecting claim 27, the Examiner correctly admitted that Cohn is deficient for failing to teach a PDSN. However, Cohn's deficiencies are far greater than that, as Cohn not only fails to teach a PDSN, but also fails to teach applying the invention of Applicant's claims with respect to streaming media to a wireless device, and fails to teach receiving logic from a server. To address the admitted deficiency of Cohn, the Examiner cited Grob. However, Grob fails to make up for both the admitted deficiency and the greater deficiencies of Cohn.

Claim 27 recites that a PDSN notifies a server of a termination of a wireless connection. The Examiner alleged that Grob, in Fig. 5 – Fig. 6, discloses a PDSN. However, Grob does not teach a PDSN that notifies a server of a termination of a wireless connection, nor does Grob

- 12 -

teach receiving logic from a server. Therefore, Grob does not make up for Cohn's deficiencies. Thus, claim 27 does not reasonably or logically follow from the teachings of Cohn and Grob.

e. The Examiner's Rejection is in Error

In addition to Grob not making up for the deficiencies of Cohn, the Examiner has not articulated reasoning that would lead a person of ordinary skill in the art to achieve Applicant's claimed invention based on these references. Thus, the Examiner has failed to establish *prima facie* obviousness.

The Examiner asserted that it would be obvious to one of ordinary skill in the art at the time of the invention to "combine Grob's PDSN feature with Cohn's system so it would provide packet data service to the access terminal." Office Action mailed Nov. 27, 2007, at page 8. This rationale for combining Cohn and Grob is irrelevant since claim 27 does not reasonably or logically follow from this combination. Thus, the Examiner's obviousness rejection is erroneous under M.P.E.P. § 2142.

3. Claims 2-3 and 22-23 are Allowable

For the foregoing reasons, and without conceding the Examiner's assertions regarding dependent claims 2-3 and 22-23, Applicant submits that dependent claims 2-3 and 22-23 are allowable for at least the reason that they depend from an allowable claim.

4. Claims 6-7 and 18-21 are Allowable

For the foregoing reasons, and without conceding the Examiner's assertions regarding dependent claims 6-7 and 18-21, Applicant submits that dependent claims 6-7 and 18-21 are allowable for at least the reason that they depend from an allowable claim.

- 13 -

5. Conclusion

Applicant has demonstrated that the rejections of claims 1-25 and 27 are in error as a matter of law. Applicant therefore respectfully requests reversal of the rejections and allowance of the claims.

Respectfully submitted,

**MCDONNELL BOEHNEN
HULBERT & BERGHOFF LLP**

Date: July 7, 2008   By: /Michael S. Borella/
                                              Michael S. Borella
                                              Reg. No. 62,361

CLAIMS APPENDIX

1.   (Previously presented)   A method for streaming multimedia content in a wireless communication system comprising:

receiving, in a server in a data network, a request from a mobile device to stream multimedia content to the mobile device from the server, the request being transmitted over a wireless connection and via a network entity to the server, wherein the network entity is selected from the group consisting of a base station controller (BSC) and a packet data serving node (PDSN);

streaming a portion of the requested multimedia content from the server to the mobile device via the network entity and the wireless connection;

the network entity detecting a termination of the wireless connection during the streaming, and the network entity responsively notifying the server;

retaining information, the information indicating a point in the multimedia content stream where the termination of the wireless connection occurred;

re-establishing the wireless connection; and

resuming streaming of the multimedia content based on the retained information.

2.   (Original)   The method of claim 1, wherein the retained information is retained in an extensible markup language tag attribute.

3.   (Original)   The method of claim 1, wherein the multimedia content is encoded with the Synchronized Multimedia Integration Language and the retained information contains a

time stamp associated with the point in the multimedia content stream where termination of the wireless connection occurred.

4. (Original) The method of claim 1, wherein retaining the retained information comprises retaining an identifier of the mobile device.

5. (Original) The method of claim 4, wherein identifier of the mobile device comprises one of a point-to-point protocol link identifier, a network address identifier and an Internet Protocol address.

6. (Original) The method of claim 1, wherein receiving the request from the mobile device comprises receiving a Real Time Streaming Protocol (RTSP) command.

7. (Original) The method of claim 6, wherein streaming the multimedia content comprises streaming the content in accordance with the RTSP.

8. (Previously presented) The method of claim 1, wherein streaming the multimedia content comprises:

communicating the multimedia content from the server to a multimedia gateway via a multicast router;

communicating the multimedia content from the multimedia gateway to a home agent device;

communicating the multimedia content from the home agent device to the PDSN;

communicating the multimedia content from the PDSN to the BSC;

communicating the multimedia content from the BSC to a base transceiver station (BTS); and

communicating the multimedia content from the BTS to the mobile device.

9.   (Previously presented)   The method of claim 1, wherein detecting the termination of the wireless connection comprises:

determining, at the BSC, that a number of bad communication frames received from the mobile device is greater than a threshold level,

wherein the BSC responds to the determining by notifying the server that termination of the wireless connection has occurred.

10.   (Previously presented)   The method of claim 1, wherein detecting the termination of the wireless connection comprises:

determining, at the BSC, that the wireless connection cannot be handed off from a first base transceiver station (BTS) to a second BTS,

wherein the BSC responds to the determining by notifying the server that termination of the wireless connection has occurred.

11.   (Previously presented)   The method of claim 1, wherein retaining the information comprises retaining the information at a multimedia gateway, wherein resuming streaming of the multimedia content based on the retained information comprises:

communicating the retained information from the multimedia gateway to the server; and

- 17 -

resuming streaming of the multimedia content from the server to the mobile device, via a multicast router at one of:

the point in the multimedia content stream where the termination of the wireless connection was detected; and

a predetermined time period earlier in the multimedia content stream than the point where the termination was detected.

12.   (Previously presented)   The method of claim 1, wherein retaining the information comprises retaining the retained information at the server.

13.   (Previously presented)   The method of claim 1, wherein retaining the information comprises:

communicating the information from the server to a multimedia gateway; and

storing the information in a database operatively associated with the multimedia gateway.

14.   (Previously presented)   The method of claim 13, wherein resuming streaming of the multimedia content comprises:

communicating the stored information from the multimedia gateway to the server;

responsively sending logic for resuming streaming of the multimedia content from the server to the multimedia gateway; and

executing the logic with the multimedia gateway to resume the multimedia content stream.

- 18 -

15.   (Original)   The method of claim 1, wherein resuming streaming of the multimedia content occurs automatically in response to reestablishing the wireless connection.

16.   (Original)   The method of claim 1, further comprising:

responsive to reestablishing the wireless connection, providing a user with an option to resume streaming of the multimedia content or cancel streaming of the multimedia content; and

resuming streaming of the multimedia content in response to a user indication to resume streaming.

17.   (Previously presented)   A method for streaming multimedia content in a wireless communication system comprising:

receiving, via a packet data network, a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network;

streaming at least a portion of the requested multimedia content from the server to the mobile device via a multimedia gateway, via an entity selected from the group consisting of a base station controller (BSC) and a packet data serving node (PDSN), and via a wireless connection to the mobile device;

at the entity, detecting a termination of the wireless connection during the streaming and responsively notifying at least one of the multimedia gateway and the server of the termination of the wireless connection;

retaining information in one of the multimedia gateway and the server, the information indicating a point in the multimedia content where the termination of the wireless connection occurred;

re-establishing the wireless connection; and

resuming streaming of the multimedia content based on the retained information.

18.   (Original)   The method of claim 17, wherein the streaming protocol command is a Real Time Streaming Protocol command.

19.   (Previously presented)   The method of claim 17, wherein streaming the multimedia content from the server to the mobile device comprises communicating the multimedia content from the server to the mobile device via the multimedia gateway, a home agent device, the BSC, the PDSN, and a base station transceiver, and

wherein communicating the multimedia content comprises communicating the multimedia content in accordance with the Real Time Streaming Protocol.

20.   (Previously presented)   The method of claim 17, wherein detecting the termination of the wireless connection comprises:

determining, at the BSC, that a number of bad communication frames received from the mobile device is greater than a threshold level,

wherein the BSC responds to the determining by notifying one of the multimedia gateway and the server that termination of the wireless connection has occurred.

- 20 -

21. (Previously presented) The method of claim 17, wherein detecting the termination of the wireless connection comprises:

determining, at the BSC, that the wireless connection cannot be handed off from a first cell-site to a second cell-site,

wherein the BSC responds to the determining by notifying one of the multimedia gateway and the server that termination of the wireless connection has occurred.

22. (Original) The method of claim 17, wherein retaining the information comprises retaining a timestamp in an extensible markup language attribute tag.

23. (Original) The method of claim 22, wherein the multimedia content is encoded with the Synchronous Multimedia Integrated Language.

24. (Previously presented) The method of claim 17, wherein resuming streaming of the multimedia content based on the retained information comprises:

communicating the retained information from the multimedia gateway to the server; and

resuming streaming of the multimedia content from the server to the mobile device, via a multicast router, at one of:

the point in the multimedia content where the termination of the wireless connection was detected; and

a predetermined time period earlier in the multimedia content than the point where the termination was detected.

- 21 -

25.   (Previously presented)   The method of claim 17, wherein resuming streaming of the multimedia content based on the retained information comprises resuming streaming of the multimedia content from the server to the mobile device, via a multicast router, at one of:

the point in the multimedia content where the termination of the wireless connection was detected; and

a predetermined time period earlier in the multimedia content than the point where the termination was detected.

26.   (Cancelled)

27.   (Previously presented)   A multimedia gateway included in a data network having a set of instructions stored therein, that when executed, the instructions provide for:

receiving a streaming protocol command from a mobile device, the command operating as a request that multimedia content be streamed to the mobile device from a server coupled with the network;

streaming at least a portion of the requested multimedia content received from the server to the mobile device via a packet data serving node;

receiving a notification from the packet data serving node that a termination of the wireless connection occurred during the streaming;

communicating the notification to the server;

receiving information from the server, the received information indicating a point in the multimedia content stream where the termination of the wireless connection occurred and an identifier of the mobile device;

storing the received information in a database operatively associated with the multimedia gateway;

re-establishing the wireless connection;

sending the received information to the server;

receiving logic from the server; and

executing the received logic to resume streaming of the multimedia content based on the received information.

EVIDENCE APPENDIX

None.

<u>RELATED PROCEEDINGS APPENDIX</u>

None.